

**6a) Create a Currency Converter Application in EJB****File Name: Index.html**

```
<html>
  <head>
    <title>TODO supply a title</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
  </head>
  <body>
    <form action="CCServlet">
      Enter Number: <input type="text" name="amt" > <br>
      Select Conversion Type:
      <input type="radio" name="type" value="r2d" checked> Rupees to Dollar
      <input type="radio" name="type" value="d2r"> Dollar to Rupees <br>
      <input type="submit" value="Convert">
    </form>
  </body>
</html>
```

**File Name: CCBean.java****package mybean;**

import javax.ejb.Stateless;

@Stateless

```
public class CCBean {
    public CCBean() {
    }
```

```
    public double r2Dollar(double r)
    {
        return r/65.65;
    }
```

```
    public double d2Rupees(double d)
    {
        return d*65.65;
    }
```

```
}
```

**File Name: CCServlet.java****package newpackage;**

import java.io.IOException;

import java.io.PrintWriter;

**import javax.ejb.EJB;**

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

**import mybean.CCBean;**

```
public class CCServlet extends HttpServlet {
```

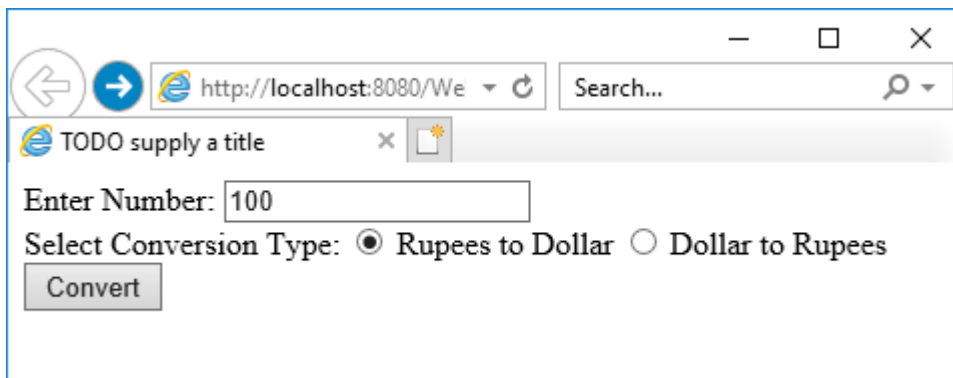
**@EJB CCBear obj;**

**@Override**

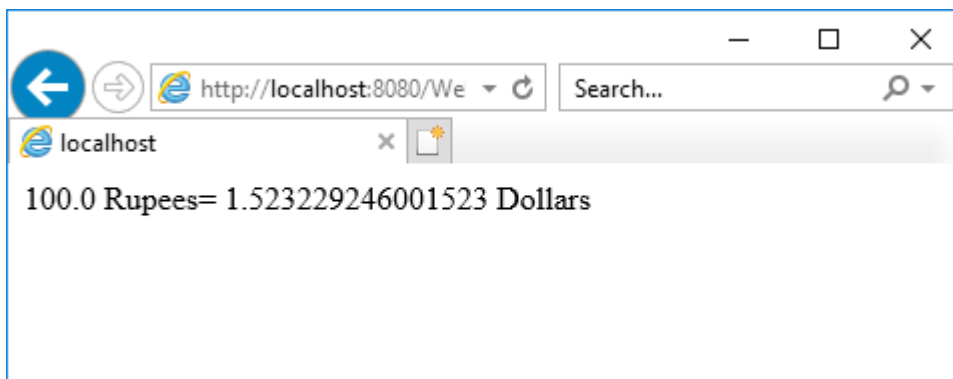
```
protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
    response.setContentType("text/html;charset=UTF-8");
    PrintWriter out=response.getWriter();
    double amt=Double.parseDouble(request.getParameter("amt"));

    if(request.getParameter("type").equals("r2d"))
    {
        out.println(amt+" Rupees= "+obj.r2Dollar(amt)+" Dollars");
    }
    if(request.getParameter("type").equals("d2r"))
    {
        out.println(amt+" Dollars= "+obj.d2Rupees(amt)+" Rupees");
    }
}
```

### Output:

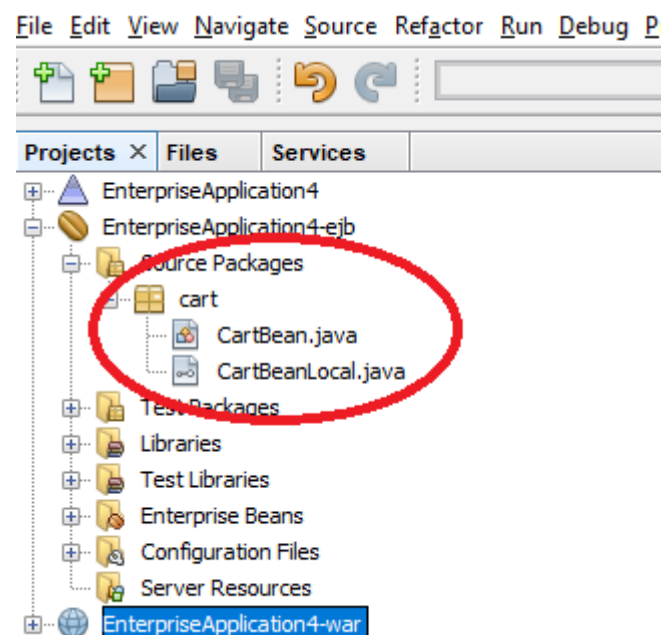
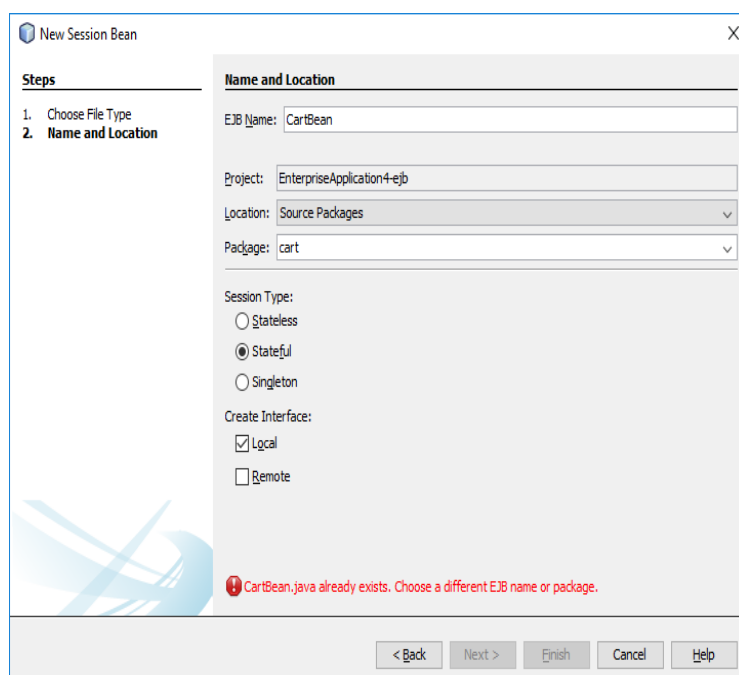
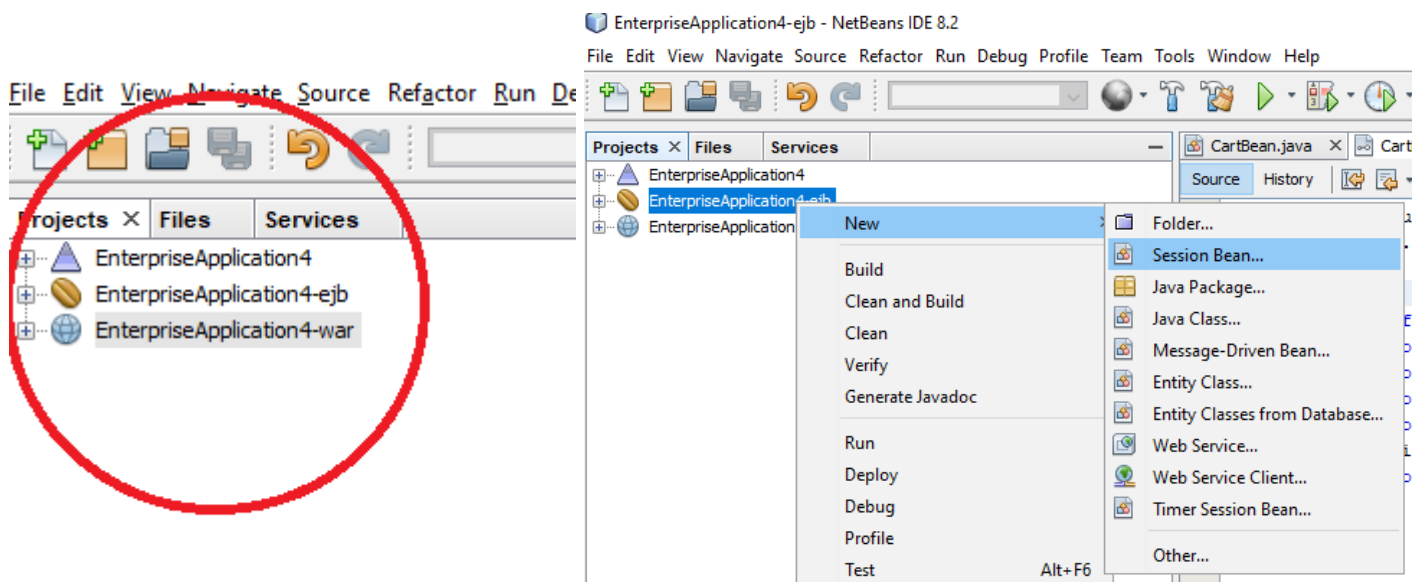
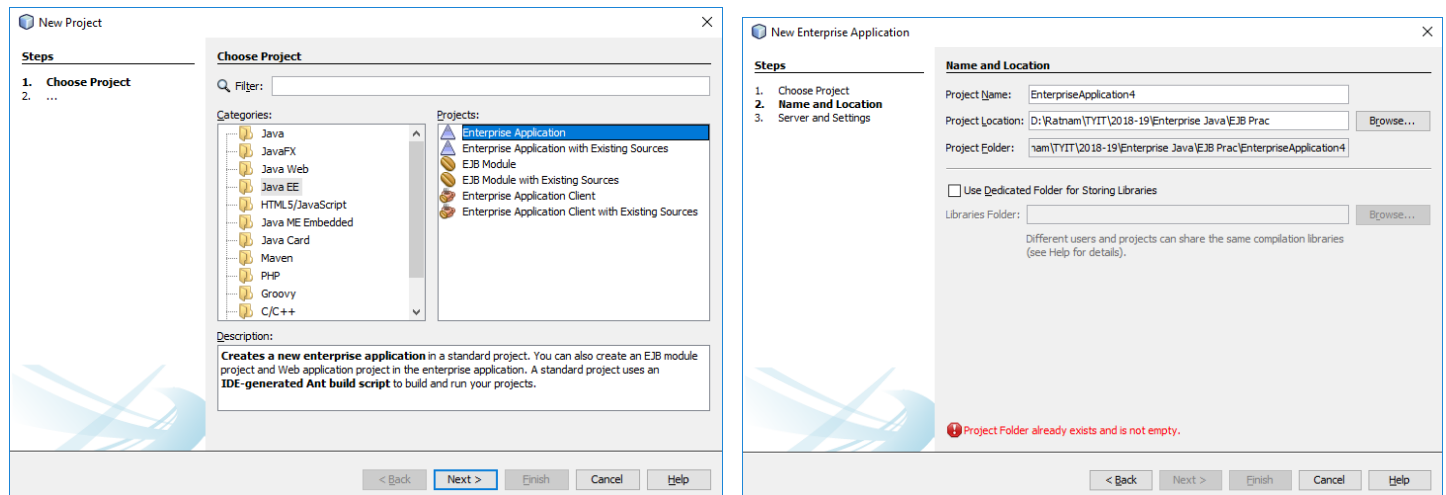


The screenshot shows a web browser window with the address bar displaying 'http://localhost:8080/We'. The page title is 'TODO supply a title'. The form contains an input field labeled 'Enter Number:' with the value '100'. Below it, there is a label 'Select Conversion Type:' followed by two radio buttons: 'Rupees to Dollar' (which is selected) and 'Dollar to Rupees'. At the bottom of the form is a 'Convert' button.



The screenshot shows the same web browser window after the conversion. The output text displayed is '100.0 Rupees= 1.523229246001523 Dollars'.

## 6c) Develop simple shopping cart application using EJB [Stateful Session Bean]



**File Name: CartBeanLocal.java**

```
package cart;

import java.util.List;
import javax.ejb.Local;

@Local
public interface CartBeanLocal {
    public void initialize(String person) throws Exception;
    public void initialize(String person, String id) throws Exception;
    public void addBook(String title);
    public void removeBook(String title) throws Exception;
    public List<String> getContents();
    public void remove();
}
```

**File Name: CartBean.java**

```
package cart;

import java.util.ArrayList;
import java.util.List;
import javax.ejb.Remove;
import javax.ejb.Stateful;

@Stateful
public class CartBean implements CartBeanLocal {
    String customerName;
    String customerId;
    List<String> contents;

    @Override
    public void initialize(String person, String id)
        throws Exception {
        if (person == null)
        {
            throw new Exception("Null person not allowed.");
        }
        else
        {
            customerName = person;
        }
        if ( "ABC".equals(person) && "123".equals(id))
        {
            customerId = id;
        }
        else
        {
            throw new Exception("Invalid id: " + id);
        }
    }
}
```

```
        contents = new ArrayList<String>();
    }

    @Override
    public void addBook(String title)
    {
        contents.add(title);
    }

    @Override
    public void removeBook(String title) throws Exception
    {
        boolean result = contents.remove(title);
        if (result == false)
        {
            throw new Exception(title + " not in cart.");
        }
    }

    @Override
    public List<String> getContents()
    {
        return contents;
    }

    @Remove
    @Override
    public void remove()
    {
        contents = null;
    }

    @Override
    public void initialize(String person) throws Exception {
        throw new UnsupportedOperationException("Not supported yet.");
    }
}
```

**File Name: Index.html**

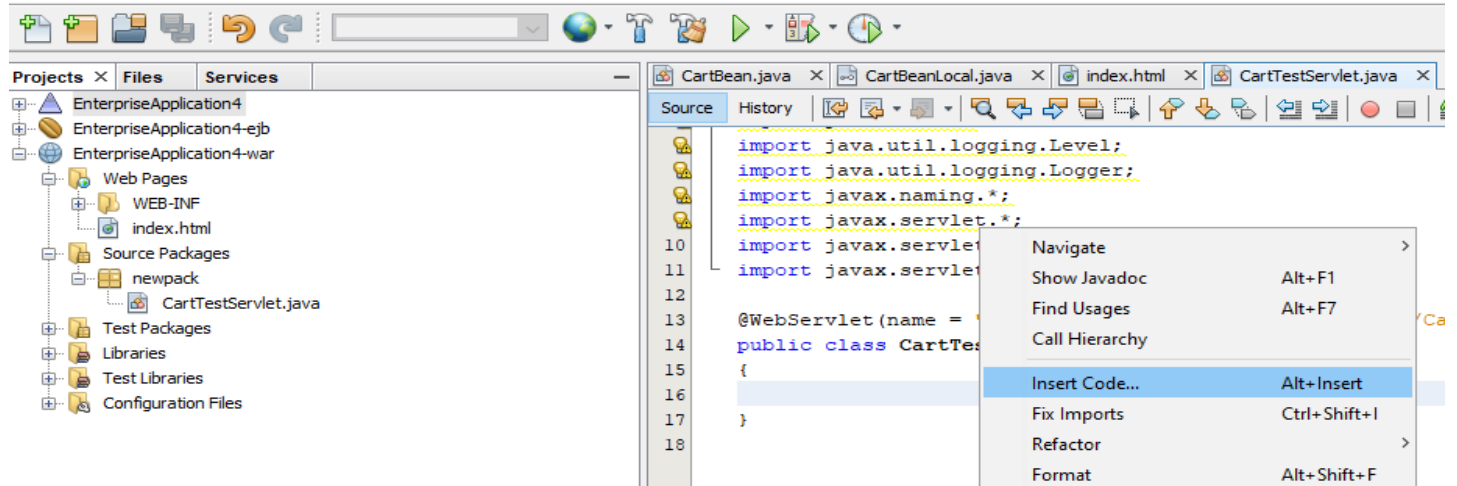
```
<html>
<head>
    <title>TODO supply a title</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
    <form action="CartTestServlet">
        <input type="submit" value="Go">
    </form>
</body>
</html>
```

Roll No:

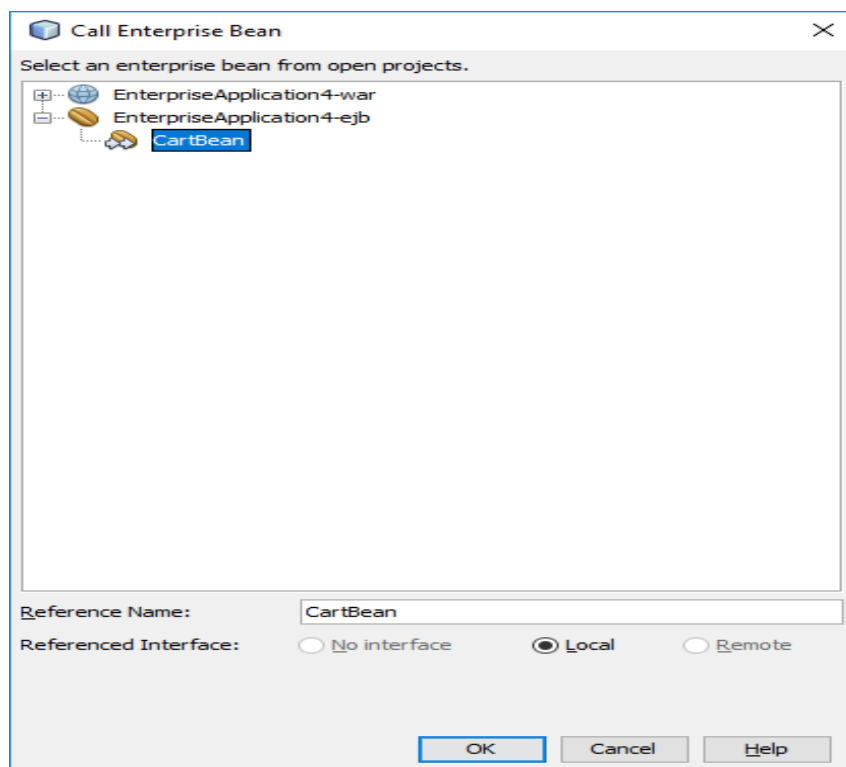
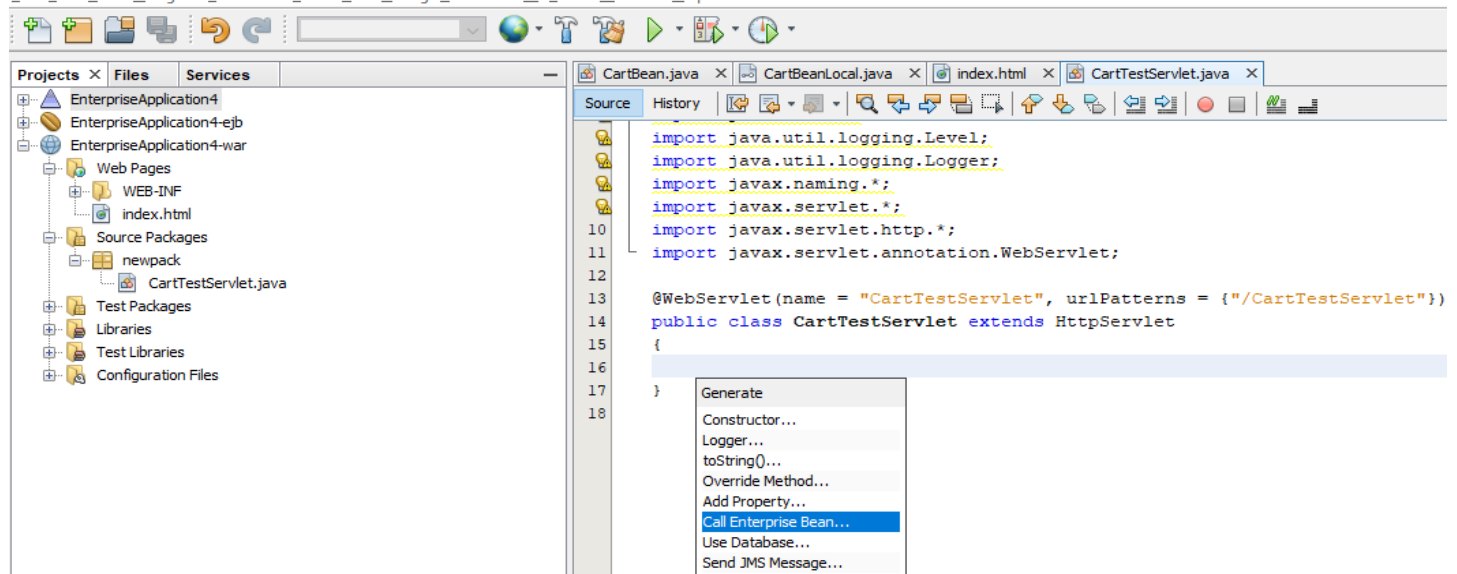
Practical - 06

Date:

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**File Name: CartTestServlet.java**

```
package newpack;
```

```
import cart.CartBeanLocal;
import java.io.*;
import java.util.*;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.naming.*;
import javax.servlet.*;
import javax.servlet.http.*;
import javax.servlet.annotation.WebServlet;
```

```
@WebServlet(name = "CartTestServlet", urlPatterns = {"/CartTestServlet"})
```

```
public class CartTestServlet extends HttpServlet
```

```
{
```

```
    CartBeanLocal cartBean = lookupCartBeanLocal();
```

```
    @Override
```

```
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
```

```
        throws ServletException, IOException {
```

```
        try
```

```
        {
```

```
            cartBean.initialize("ABC", "123");
```

```
        }catch(Exception e){}
```

```
        cartBean.addBook("Java 8 Cookbook");
```

```
        cartBean.addBook("Enterprise Java 7 ");
```

```
        cartBean.addBook("Java for Dummies");
```

```
        cartBean.addBook("Learn Java 8");
```

```
        try (PrintWriter out = response.getWriter())
```

```
        {
```

```
            try
```

```
            {
```

```
                List<String> books = cartBean.getContents();
```

```
                for( String s : books)
```

```
                    out.println(s + "<br />");
```

```
            }catch(Exception e){}
```

```
        }
```

```
    }
```

```
    private CartBeanLocal lookupCartBeanLocal() {
```

```
        try
```

```
        {
```

```
            Context c = new InitialContext();
```

```
            return (CartBeanLocal) c.lookup("java:global/EnterpriseApplication4/EnterpriseApplication4-ejb/CartBean!cart.CartBeanLocal");
```

```
        }
```

```
        catch (NamingException ne)
```

```
{  
    Logger.getLogger(getClass().getName()).log(Level.SEVERE, "exception caught", ne);  
    throw new RuntimeException(ne);  
}  
}  
}
```

**Output:**